



UNITED STATES PATENT AND TRADEMARK OFFICE

Pen
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,063	07/23/2003	Ramin Khoini-Poorfard	SILAPW0008 (025.0008)	9747

34456 7590 03/23/2007
LARSON NEWMAN ABEL POLANSKY & WHITE, LLP
5914 WEST COURTYARD DRIVE
SUITE 200
AUSTIN, TX 78730

EXAMINER

ZHENG, EVA Y

ART UNIT	PAPER NUMBER
----------	--------------

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/626,063

Applicant(s)

KHOINI-POORFARD, RAMIN

Examiner

Eva Yi Zheng

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-11, and 13-41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-10, 13-38, and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (US 5,793,817) in view of Schilling (US 6,262,971), and in further view of Talwalkar et al (US 2004/0146118).

- a) Regarding to claims 1, 18, 26 and 34, Wilson discloses a terminal for use in a communication system comprising:

an upconverter core (28 and 30 in Fig. 1) having a first input terminal (node 24 and 26) for receiving a first signal having predetermined special content at an input frequency and an output terminal for providing an output signal (output of mixer 28 and 30) having substantially said predetermined spectral content at a higher frequency using a local oscillator signal having a carrier frequency (local oscillator 32);

an electrical measurement circuit having an input terminal coupled to said output terminal of said upconverter core, and a first output terminal for providing a first offset

Art Unit: 2611

correction signal representative of a power of said output signal at said carrier frequency (feedback circuit 39 in Fig. 3 and output of block 64); and

a first summing device having a positive input terminal for receiving said coded signal, a negative input terminal coupled to said first output terminal of said electrical measurement circuit, and an output terminal coupled to said first input terminal of said upconverter core for providing said first signal (68 in Fig. 3; Col 5 L13-Col 6, L38).

Wilson discloses all the subject matters above except for the specific teaching of (A) a coder having an input terminal for receiving an input signal, and an output terminal for providing a coded signal. In addition, Wilson failed to disclose a plurality of terminals; a communication hub for being operatively coupled to the plurality terminals; transmitting the output signal to the second terminal over the communication medium; and receiving said output signal from the communication medium at the second terminal. (B) a storage medium for receiving and storing the first correction signal during a calibrate period. And providing the first offset correction signal to negative input terminal of the first summing device during an operate period.

However, Schilling teaches a spread spectrum system, comprises a base station (hub) and a plurality of users (Fig. 1) (plurality of terminals), wherein the transmitter comprise an encoder (42 in Fig. 1), and provide its output to upconverter (50). The signals are then transmitted and received by antenna (60) (second terminal). It is well known that encoder provide encryption process. Therefore, it is obvious to one of ordinary skill in art to combine the teaching of coder by Schilling in the transmitter

system of Wilson. By doing so, provide privacy, security and restrict intelligent receipt in data transmission.

Moreover, Talwalkar et al. disclose a storage element (155 in Fig. 1) for receiving and storing the first correction signal during a calibrate period ([0007], [0023-0026]), wherein the storage element provides the first offset correction signal to negative input terminal of the first summing device during an operate period (160 in Fig. 1, [0007], [0023-0026]). Therefore, it would have been obvious to one of ordinary skill in art to combine the storage/correction circuit of Talwalkar et al with the teaching of coder by Schilling in the transmitter system of Wilson. By doing so, correctly suppress carrier feedthrough in multi-carrier communication system.

b) Regarding to claims 2, 36, 37 and 38, wherein said coder comprises:

a forward error coder having an input terminal for receiving said input signal, and an output terminal (Schilling; Col 10, L26);

a line coder having an input terminal coupled to said output terminal of said forward error coder, and an output terminal for providing said coded signal (Wilson; modulator 10).

c) Regarding to claims 4, 19, 27 and 35, Wilson disclose an antenna coupled to said output terminal of said upconverter core (40 in Fig. 3).

d) Regarding to claims 5, 20 and 28, Schilling disclose a receiver having an input terminal coupled to said antenna; and an output terminal for providing a received signal (as shown in Fig. 2).

Art Unit: 2611

e) Regarding to claims 6 and 21, Schilling disclose wherein said receiver comprises:

an RF receiver (60 in Fig. 2) and downconverter (62,63,70,64, and 79 in Fig. 2) having an input terminal coupled to said antenna, and an output terminal;

a decoder having an input terminal coupled to said output terminal of said RF receiver and downconverter, and an output terminal for providing said received signal (81 in Fig. 2).

f) Regarding to claims 7, 22 and 30, Schilling disclose wherein the communication system further comprises a cellular antenna operatively coupled to said cellular telephone handset (inherent as spread spectrum system contain voice information; Col 2, L47-51).

g) Regarding to claims 8, 23 and 31 Schilling disclose wherein the communication system is characterized as being a TDMA communication system (inherent as spread spectrum communication system; Col 1, L12-16).

h) Regarding to claims 9, 24, 32 and 40, Wilson disclose wherein the communication system further comprises a satellite operatively coupled to said satellite modem (as shown in Fig. 1).

i) Regarding to claims 10, 25, 33 and 41, Wilson disclose wherein the communication system further characterized as being a Global system of mobile communication (GSM) system (as shown in Fig. 1)

j) Regarding to claim 13, Wilson disclose wherein said upconverter core further has a second input terminal coupled to said coder for receiving a second signal

Art Unit: 2611

characterized as being in quadrature with said first signal and further provides said output signal by converting said second signal to said higher frequency using a quadrature local oscillator signal having said carrier frequency (Fig. 3 and 4).

k) Regarding to claim 14, Wilson disclose wherein said upconverter core comprises:

- a first mixer having a first input terminal for receiving said first signal, a second input terminal for receiving said local oscillator signal, and an output terminal (28);

- a second mixer having a first input terminal for receiving said second signal, a second input terminal for receiving said quadrature local oscillator signal, and an output terminal (30);

- a phase shifter having an input terminal for receiving said local oscillator signal, and an output terminal coupled to said second input terminal of said second mixer for providing said quadrature local oscillator signal (34); and

- a summing device having a first positive input terminal coupled to said output terminal of said first mixer, a second positive input terminal coupled to said output terminal of said second mixer, and an output terminal for providing said output signal (35).

l) Regarding to claim 15, Wilson disclose wherein said electrical measurement circuit further has a second output terminal for providing a second offset correction signal representative of a power of said output signal at said carrier frequency and in quadrature with said first offset correction signal (output of block 66), and the terminal further comprises a second summing device having a positive input terminal for receiving a second input signal, a negative input terminal coupled to said second output

terminal of said electrical measurement circuit during said calibrate period, and an output terminal coupled to said second input terminal of said upconverter core for providing said second signal (70 in Fig. 4).

m) Regarding to claim 17, Talwalkar et al. disclose a storage element (155 in Fig. 1) for receiving and storing the second correction signal during a calibrate period ([0007], [0023-0026]), wherein the storage element provides the second offset correction signal to negative input terminal of the first summing device during an operate period (161 in Fig. 1, [0007], [0023-0026]).

n) Regarding to claim 29, Schilling disclose a coder having an output terminal for providing a coded signal to said positive input terminal of said first summing device (block 42).

4. Claims 3 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (US 5,793,817) in view of Schilling (US 6,262,971), in further view of Talwalkar et al (US 2004/0146118), and further in view of Rosenberg et al. (US 6,141,788).

Regarding to claims 3 and 39, Wilson, Schilling and Talwalkar et al disclose all the subject matter above except for the specific teaching of a speech coder.

However, Rosenberg et al. disclose a transmitter system comprise a data compression device (115 in Fig. 2) having an input terminal for receiving a speech signal (microphone 114), and an output terminal coupled to the input of the forward error coder (111).

Therefore, it is obvious to one of ordinary skill in art to combine the data compression device of Rosenberg in the transmitter system of Wilson. By doing so, prevent data loss and provide better error correction in a transmitter system.

5. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (US 5,793,817) in view of Schilling (US 6,262,971), in further view of Talwalkar et al (US 2004/0146118), and further in view of Harman (US 5,033,110).

a) Regarding to claims 11 and 16, Wilson disclose a first mixer having a first input terminal for receiving said output signal, a second input terminal for receiving said local oscillator signal, and an output terminal (56 in Fig. 3), but failed the specific teaching of a first integrator and a second integrator.

However, Harman discloses an integrator (44) in a feedback circuit of a transmitter (Fig. 1; Col 3, L51-55; Col 4, L11-16). Therefore, it is obvious to one of ordinary skill in art to combine the teaching of Harman and Wilson, by doing so, reduce DC offset in the transmitter.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

Art Unit: 2611

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-11 and 13-41 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S.

Patent Application No. 10/626,062 in view of U.S. Patent by Schilling (US 6,262,971).

a) Regarding to instant application claims 1-11 and 13-25, the limitation "a coder having an input terminal for receiving an input signal, and an output terminal for providing a coded signal", would have been obvious to one of ordinary skill in the art to modify the U.S. Patent Application No. 10/626,062 in view of U.S. Patent by Schilling (US 6,262,971), (Schilling, see block 42 in Fig. 2), for providing privacy, security and restrict intelligent receipt in data transmission.

b) Regarding to instant application claims 26-33, the limitation "a plurality of terminals; and a communication hub for being operatively coupled to the plurality of terminals", would have been obvious to one of ordinary skill in the art to modify the U.S. Patent Application No. 10/626,062 in view of U.S. Patent by Schilling (US 6,262,971), (Schilling, see Fig. 1), for facilitate communications between multiply users.

c) Regarding to instant application claims 34-41, the limitation "transmitting output signal to the second terminal over the communication medium and receiving the output

Art Unit: 2611

signal from the communication medium at the second terminal", would have been obvious to one of ordinary skill in the art to modify the U.S. Patent Application No. 10/626,062 in view of U.S. Patent by Schilling (US 6,262,971), (Schilling, see Fig. 1), for facilitate desirable communications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2611

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571-272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng
Examiner
Art Unit 2611

March 12, 2007


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER